```
=> file medline biosis caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'MEDLINE' ENTERED AT 12:51:00 ON 05 SEP 2002

FILE 'BIOSIS' ENTERED AT 12:51:00 ON 05 SEP 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'CAPLUS' ENTERED AT 12:51:00 ON 05 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> s reverse(w)transcript?
L1      146494 REVERSE(W) TRANSCRIPT?

=> s thermostab?
L2       31136 THERMOSTAB?

=> s l1 (9a) l2
L3         138 L1 (9A) L2

=> s l3 and (mutat? or modif? or chang? or alter?)
L4          38 L3 AND (MUTAT? OR MODIF? OR CHANG? OR ALTER?)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5          24 DUP REM L4 (14 DUPLICATES REMOVED)

=> d 1-24 ti

L5   ANSWER 1 OF 24  CAPLUS  COPYRIGHT 2002 ACS
TI   Amplifying and sequencing DNA using thermostable DNA polymerases that
     differentially discriminate against dideoxynucleotides and that can be
     differentially activated as a result of chemical modification

L5   ANSWER 2 OF 24  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
     1
TI   One step RT-PCR methods, enzyme mixes and kits for use in practicing the
     same.

L5   ANSWER 3 OF 24  CAPLUS  COPYRIGHT 2002 ACS
TI   Modified or mutated reverse
     transcriptases with high thermostability and uses
     thereof

L5   ANSWER 4 OF 24  CAPLUS  COPYRIGHT 2002 ACS
TI   Immunological detection of RNA:DNA hybrids on microarrays

L5   ANSWER 5 OF 24  CAPLUS  COPYRIGHT 2002 ACS
TI   Method of reversible inactivation of thermostable enzymes using chemical
     modification under aqueous conditions

L5   ANSWER 6 OF 24  CAPLUS  COPYRIGHT 2002 ACS
TI   Activation of 2 types of modified thermostable DNA polymerases
     at different stages in the thermo-cycler reaction for nucleic acid
     amplification and sequencing

L5   ANSWER 7 OF 24  CAPLUS  COPYRIGHT 2002 ACS
```

TI High temperature reverse transcription using mutant DNA polymerases

L5 ANSWER 8 OF 24 MEDLINE DUPLICATE 2
TI Differential expression of gh1 and gh2 genes by competitive rt-pcr in rainbow trout pituitary.

L5 ANSWER 9 OF 24 MEDLINE DUPLICATE 3
TI Development of a strand-specific RT-PCR based assay to detect the replicative form of hepatitis C virus RNA.

L5 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI DNA polymerases from hyperthermophiles

L5 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerases from Thermotoga and mutants and their use in DNA sequencing and amplification

L5 ANSWER 12 OF 24 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Hepatitis C virus in lymphoid cells of patients coinfected with human immunodeficiency virus type 1: Evidence of active replication in monocytes/macrophages and lymphocytes.

L5 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI Method for reversible **modification** of thermostable enzymes using aldehydes and its application to nucleic acid amplification

L5 ANSWER 14 OF 24 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Detection for HCV with FD-**thermostable reverse transcriptase** mediated RT-nested PCR.

L5 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI Avian sarcoma-leukosis virus reverse transcriptases with improved properties for use in reverse transcription, amplification and sequencing

L5 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus and mutant enzymes with exonuclease activity removed

L5 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus and mutant enzymes with exonuclease activity removed

L5 ANSWER 18 OF 24 MEDLINE DUPLICATE 4
TI Comparison of Mycobacterium 23S rRNA sequences by high-temperature reverse transcription and PCR.

L5 ANSWER 19 OF 24 MEDLINE DUPLICATE 5
TI [Use of polymerase chain reaction for determining bcr/abl mRNA in human chronic myeloleukemia].
Primenenie polimeraznoi tsepnoi reaktsii dlia opredeleniia bcr/abl mRNK pri khronicheskom mieloleikoze cheloveka.

L5 ANSWER 20 OF 24 MEDLINE DUPLICATE 6
TI An improved reverse transcription-polymerase chain reaction method to study apolipoprotein gene expression in Caco-2 cells.

L5 ANSWER 21 OF 24 MEDLINE DUPLICATE 7
TI Confirmation of mutant alpha 1 Na,K-ATPase gene and transcript in Dahl salt-sensitive/JR rats.

L5 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2002 ACS
TI PCR-mediated synthesis of a gene coding for the interleukin 1 receptor

antagonist

L5 ANSWER 23 OF 24 MEDLINE DUPLICATE 8
TI Rapid amplification of complementary DNA from small amounts of unfractionated RNA.

L5 ANSWER 24 OF 24 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI **MODIFIED** MICROMETHOD FOR DETECTING THE REVERSE TRANSCRIPTASE ACTIVITY OF RETROVIRUSES IN A CULTURE MEDIUM AND IN BIOLOGICAL MATERIALS.

=> d 3 bib ab

L5 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2002 ACS
AN 2001:886488 CAPLUS
DN 136:32693
TI **Modified** or **mutated reverse transcriptases** with high **thermostability** and uses thereof
IN Smith, Michael D.; Potter, Robert Jason; Dhariwal, Gulshan; Gerard, Gary F.; Rosenthal, Kim
PA Invitrogen Corp., USA
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092500	A1	20011206	WO 2001-US16861	20010525
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002090618	A1	20020711	US 2001-845157	20010501
PRAI	US 2000-207196P	P	20000526		
	US 2001-845157	A	20010501		
	US 2001-808124	A	20010515		

AB The present invention provides **modified reverse transcriptases** with increasing **thermostability**. The invention is generally related to reverse transcriptase enzymes and methods for the reverse transcription of nucleic acid mols., esp. mRNA mols. Specifically, the invention relates to **reverse transcriptase** enzymes which have been **mutated** or **modified** to increase **thermostability**, decrease terminal deoxynucleotidyl transferase activity, and/or increase fidelity, and to methods of producing, amplifying or sequencing nucleic acid mols. (particularly cDNA mols.) using these reverse transcriptase enzymes or compns. The invention also relates to nucleic acid mols. produced by these methods and to the use of such nucleic acid mols. to produce desired polypeptides. The invention also concerns kits comprising such enzymes or compns.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 7 bib ab

L5 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2002 ACS
AN 2001:814072 CAPLUS
DN 135:353708
TI High temperature reverse transcription using mutant DNA polymerases
IN Smith, Edward Soh; Elfstrom, Carita Maria; Gelfand, David Harrow; Higuchi, Russell Gene; Myers, Thomas William; Schoenbrunner, Nancy Jeneane; Wang, Alice Ming
PA F.Hoffmann-La Roche AG, Switz.
SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1152062	A2	20011107	EP 2001-109341	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002012970	A1	20020131	US 2001-823649	20010330
	BR 2001001493	A	20011113	BR 2001-1493	20010417
	CN 1344802	A	20020417	CN 2001-117024	20010418
PRAI	US 2000-198336P	P	20000418		

AB The present invention relates to improved **reverse transcription** methods using a **modified thermostable** DNA polymerases, particularly in a magnesium ion buffer. These methods are particularly useful in combined reverse-transcription/amplification reactions.

=> d 16 bib ab

L5 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2002 ACS
AN 1998:263203 CAPLUS
DN 128:318803
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus and mutant enzymes with exonuclease activity removed
IN Mamone, Joseph A.; Davis, Maria; Sha, Dan
PA Amersham Life Science, Inc., USA
SO U.S., 41 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5744312	A	19980428	US 1996-766014	19961213

AB An enzymically active DNA polymerase or fragment is provided having .gtoreq.80% homol. in its amino acid sequence to at least a contiguous 40-amino-acid sequence of DNA polymerase of Thermoanaerobacter thermohydrosulfuricus as well as mutant enzymes where the exonuclease activity has been removed. Thus, deletions of up to 1/3 of the amino acid sequence from the N-terminus remove the exonuclease activity of the enzyme and are combined with a F706Y **mutation** to produce a thermostable DNA polymerase. DNA constructs derived from the full-length gene from T. thermohydrosulfuricus were prepd. as expression vectors for the C-terminal 607 or 577 amino acids of the enzyme (plus an initiating Met) and a mutagenic oligonucleotide was designed to prep. the F412Y form of the 588-residue mutant. The enzyme is useful for procedures requiring strand-displacing DNA synthesis such as strand-displacement amplification, for DNA sequencing, and/or for reverse transcription.

```
=> d his

     (FILE 'HOME' ENTERED AT 12:50:52 ON 05 SEP 2002)

     FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:51:00 ON 05 SEP 2002
L1        146494 S REVERSE(W)TRANSCRIPT?
L2         31136 S THERMOSTAB?
L3           138 S L1 (9A) L2
L4            38 S L3 AND (MUTAT? OR MODIF? OR CHANG? OR ALTER?)
L5            24 DUP REM L4 (14 DUPLICATES REMOVED)

=> s l1 (5a) (mutat? or modif? or chang? or alter?)
<------User Break------>
u
SEARCH ENDED BY USER
SEARCH ENDED BY USER

=> s l1 (5a) (mutat? or modif? or chang? or alter? or increas? or enhanc?)
<------User Break------>
u
SEARCH ENDED BY USER

=> s l1 (5a) (mutat? or modif? or chang? or alter? or increas? or enhanc? or
improv?) (11a) thermostab?
   2 FILES SEARCHED...
L6           19 L1 (5A) (MUTAT? OR MODIF? OR CHANG? OR ALTER? OR INCREAS? OR
                ENHANC? OR IMPROV?) (11A) THERMOSTAB?

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7            16 DUP REM L6 (3 DUPLICATES REMOVED)

=> d 1-16 ti

L7   ANSWER 1 OF 16  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
     1
TI   Direct detection of RNA mediated by reverse transcriptase lacking RNAse H
     function.

L7   ANSWER 2 OF 16  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE
     2
TI   Method for improved reverse transcription at high temperatures.

L7   ANSWER 3 OF 16  CAPLUS  COPYRIGHT 2002 ACS
TI   Modified or mutated reverse
     transcriptases with high thermostability and uses
     thereof

L7   ANSWER 4 OF 16  CAPLUS  COPYRIGHT 2002 ACS
TI   one step RT-PCR methods using enzyme mixes and kits comprising mutant
     thermostable polymerase and reverse transcriptase

L7   ANSWER 5 OF 16  CAPLUS  COPYRIGHT 2002 ACS
TI   Activation of 2 types of modified thermostable DNA polymerases at
     different stages in the thermo-cycler reaction for nucleic acid
     amplification and sequencing

L7   ANSWER 6 OF 16  CAPLUS  COPYRIGHT 2002 ACS
TI   High temperature reverse transcription using mutant DNA polymerases

L7   ANSWER 7 OF 16  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
```

TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function.

L7 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function

L7 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Method for reversible modification of thermostable enzymes using aldehydes and its application to nucleic acid amplification

L7 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Critical factors in the preparation of representative full-length cDNA libraries. I

L7 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI **Improved reverse transcription** with **thermostable** DNA-dependent DNA polymerases in presence of betaine

L7 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Avian sarcoma-leukosis virus reverse transcriptases with improved properties for use in reverse transcription, amplification and sequencing

L7 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Chelating agents for improving thermostability of RNA in solution containing metallic ions

L7 ANSWER 14 OF 16 MEDLINE DUPLICATE 3
TI Comparison of Mycobacterium 23S rRNA sequences by high-temperature reverse transcription and PCR.

L7 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI Truncated Thermus DNA polymerases with enhanced thermostability and DNA polymerase formulations for enhancement of nucleic acid amplification

L7 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2002 ACS
TI PCR-mediated synthesis of a gene coding for the interleukin 1 receptor antagonist

=> d 12 bib ab

L7 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 1998:709090 CAPLUS
DN 129:327725
TI Avian sarcoma-leukosis virus reverse transcriptases with improved properties for use in reverse transcription, amplification and sequencing
IN Gerard, Gary F.; Smith, Michael D.; Chatterjee, Deb K.
PA Life Technologies, Inc., USA
SO PCT Int. Appl., 201 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847912	A1	19981029	WO 1998-US8072	19980422

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

	AU 9873601	A1	19981113	AU 1998-73601	19980422
	EP 1005481	A1	20000607	EP 1998-920859	19980422
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001523098	T2	20011120	JP 1998-546292	19980422
	US 2002081581	A1	20020627	US 1999-245026	19990205
PRAI	US 1997-44589P	P	19970422		
	US 1997-49874P	P	19970617		
	US 1998-64057	A3	19980422		
	WO 1998-US8072	W	19980422		

AB The title reverse transcriptases comprise a mixt. of two or more proteins with reverse transcriptase activity, one or both having reduced RNase H activity, and each exhibiting a different transcription pause site. These compns. may be used for prodn. of cDNAs as well as for nucleic acid amplication and sequencing. The modified reverse transcriptases may be produced with recombinant cells. Thus, greater yields of total and full-length cDNA product using a 7.5-kb mRNA was obtained when two different RNase H- reverse transcriptases were combined than when each was used sep. in the wild-type or RNase H- form. The two reverse transcriptases used were from Rous sarcoma virus and from Moloney murine leukemia virus. It was also noted that the Rous sarcoma virus RNase H- enzyme was more thermostable than the wild-type enzyme. Other expts. indicated that the combination of RNase H- .alpha. subunit with RNase H+ .beta. subunit was more thermostable than other combinations of RNase H.+-. subunits.

=> d 15 bib ab

L7 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 1995:377249 CAPLUS
DN 122:153369
TI Truncated Thermus DNA polymerases with enhanced thermostability and DNA polymerase formulations for enhancement of nucleic acid amplification
IN Barnes, Wayne M.
PA USA
SO PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9426766	A1	19941124	WO 1994-US1867	19940222
	W: AU, CA, JP, NZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5436149	A	19950725	US 1993-21623	19930219
	CA 2156176	AA	19941124	CA 1994-2156176	19940222
	AU 9462464	A1	19941212	AU 1994-62464	19940222
	AU 671204	B2	19960815		
	EP 693078	A1	19960124	EP 1994-909742	19940222
	EP 693078	B1	19990623		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 11501801	T2	19990216	JP 1994-522506	19940222
	JP 2885324	B2	19990419		
	AT 181573	E	19990715	AT 1994-909742	19940222
	JP 11239492	A2	19990907	JP 1998-359199	19940222
	ES 2136730	T3	19991201	ES 1994-909742	19940222
PRAI	US 1993-21623	A	19930219		

US 1994-202032 19940222
JP 1994-522506 A3 19940222
WO 1994-US1867 W 19940222

AB A DNA polymerase having an amino acid sequence comprising substantially the same amino acid sequence as that of Thermus aquaticus or Thermus flavus DNA polymerase, excluding the N-terminal 280 amino acid residues of Thermus aquaticus DNA polymerase or the N-terminal 279 amino acid residues of Thermus flavus DNA polymerase, and recombinant DNA sequences encoding said DNA polymerases are claimed. A formulation of thermostable or other DNA polymerases comprising a majority component comprised of at least one thermostable or other DNA polymerase of the type described above, wherein the DNA polymerase lacks 3'-exonuclease activity, and a minority component comprised of at least one thermostable DNA polymerase exhibiting 3'-exonuclease activity, and an improved method for enzymic extension of DNA strands, esp. while, but not limited to, amplifying nucleic acid sequences by polymerase chain reaction wherein the above formulation is made and used to catalyze primer extension, are also provided. Expression vector pWB254, encoding Klentaq-278 (the T. aquaticus DNA polymerase deriv.), was prepd. E. coli contg. this plasmid were used to prep. the enzyme and large-scale purifn. of the enzyme was performed. In a PCR expt., exposure to 98.degree. was not detectably detrimental to Klentaq-278. Using a 640:1 mixt. of this enzyme with Pyrococcus furiosus DNA polymerase, efficient amplification of 8.4, 12.5, 15, and 18 kb DNA fragments was demonstrated. The fidelity of the product amplified was at least equal to that obtained using P. furiosus DNA polymerase alone.

=> d 6, 11 bib ab

L7 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 2001:814072 CAPLUS
DN 135:353708
TI High temperature reverse transcription using mutant DNA polymerases
IN Smith, Edward Soh; Elfstrom, Carita Maria; Gelfand, David Harrow; Higuchi, Russell Gene; Myers, Thomas William; Schoenbrunner, Nancy Jeneane; Wang, Alice Ming
PA F.Hoffmann-La Roche AG, Switz.
SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1152062	A2	20011107	EP 2001-109341	20010412
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2002012970	A1	20020131	US 2001-823649	20010330
	BR 2001001493	A	20011113	BR 2001-1493	20010417
	CN 1344802	A	20020417	CN 2001-117024	20010418
PRAI	US 2000-198336P	P	20000418		

AB The present invention relates to **improved reverse transcription** methods using a **modified thermostable** DNA polymerases, particularly in a magnesium ion buffer. These methods are particularly useful in combined reverse-transcription/amplification reactions.

L7 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 1998:709222 CAPLUS
DN 129:326936
TI **Improved reverse transcription** with **thermostable** DNA-dependent DNA polymerases in presence of betaine

IN Jendrisak, Jerome J.
PA Epicentre Technologies Corporation, USA
SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9848053	A1	19981029	WO 1998-US7997	19980415
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 6030814	A	20000229	US 1997-840474	19970421
	AU 9871423	A1	19981113	AU 1998-71423	19980415
	AU 743907	B2	20020207		
	EP 977891	A1	20000209	EP 1998-918516	19980415
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000513585	T2	20001017	JP 1998-546266	19980415
PRAI	US 1997-840474	A	19970421		
	WO 1998-US7997	W	19980415		

AB A method of improving the synthesis of full-length cDNA transcripts by Mn++-dependent reverse transcriptases, preferably DNA-dependent DNA polymerases, is disclosed. The improvement consists in the polymn. in the presence of betaine.

=> d 8, 9 bib ab

L7 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 1999:511279 CAPLUS
DN 131:140473
TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function
IN De La Rosa, Abel; Collier, Clayton D.
PA Digene Corporation, USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940224	A1	19990812	WO 1999-US2382	19990203
	W: AU, CA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5994079	A	19991130	US 1998-20067	19980206
	CA 2320102	AA	19990812	CA 1999-2320102	19990203
	AU 9925811	A1	19990823	AU 1999-25811	19990203
	AU 742955	B2	20020117		
	EP 1053354	A1	20001122	EP 1999-905711	19990203
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-20067	A	19980206		
	WO 1999-US2382	W	19990203		

AB Disclosed is a method of detecting RNA mols. of interest in which reverse transcription primers unique to the RNA mol. of interest are used for reverse transcribing the RNA with a reverse transcriptase lacking RNAse H function and the resulting RNA/DNA hybrid is detected with an antibody specific for RNA/DNA hybrids. This method can be used to detect the presence of one or many specific RNA mols. which may be present in a sample, including RNA from different organisms (such as viruses, bacteria, fungi, plants, and animals), or RNA indicative of an infection, a disease state, or predisposition to a disease in an animal. The specificity of detection is increased relative to current detection methods involving probe hybridization since the reverse transcription primers are shorter and less subject to non-specific hybridization. Specificity of the disclosed method can also be **increased** by using a **thermostable reverse transcriptase** and performing reverse transcription at a high temp. The disclosed method can also be used to detect reverse transcriptase activity in a sample and to identify inhibitors of reverse transcriptase. Also disclosed is a method for sequencing target RNA mols. using reverse transcriptase lacking an RNAse H function. Detection of HIV-1 RNA in different samples with a 23-nucleotide biotinylated oligonucleotide as the extension primers was demonstrated.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2002 ACS
AN 1999:783789 CAPLUS
DN 132:19613
TI Method for reversible modification of thermostable enzymes using aldehydes and its application to nucleic acid amplification
IN Ivanov, Igor; Loffert, Dirk; Kang, Jie; Ribbe, Joachim; Steinert, Kerstin
PA Qiagen G.m.b.H., Germany
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 962526	A2	19991208	EP 1999-110426	19990528
	EP 962526	A3	20020116		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6183998	B1	20010206	US 1998-183950	19981031
PRAI	US 1998-86846	A	19980529		
	US 1998-183950	A	19981031		

OS MARPAT 132:19613
AB The present invention provides a method for reversible inactivation of thermostable enzymes by chem. modification under aq. conditions. This chem. modification of thermostable enzymes has surprising effects in applications in the field of mol. biol. such as nucleic acid amplification. A method for the amplification of a target nucleic acid is disclosed comprising the steps of reacting a nucleic acid with an amplification reaction mixt. and a modified thermostable enzyme, wherein said modified thermostable polymerase is prepd. by a reaction of a mixt. of a thermostable polymerase and a chem. modifying reagent. The chem. modification reagent is an aldehyde, preferably formaldehyde. Essentially complete inactivation of the enzyme at ambient temps. is achieved, with recovery of enzymic activity at temps. above 50.degree..

=> s (mmlv or alv) and thermostab?
L8 9 (MMLV OR ALV) AND THERMOSTAB?

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 6 DUP REM L8 (3 DUPLICATES REMOVED)

=> d 1-6 bib ab

L9 ANSWER 1 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
AN 2001:567473 BIOSIS
DN PREV200100567473
TI One step RT-PCR methods, enzyme mixes and kits for use in practicing the same.
AU Zhao, Ningyue (1); Wurst, Helmut
CS (1) Milpitas, CA USA
ASSIGNEE: Clontech Laboratories, Inc.
PI US 6300073 October 09, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 9, 2001) Vol. 1251, No. 2, pp. No Pagination. e-file.
ISSN: 0098-1133.
DT Patent
LA English
AB Enzyme compositions, kits comprising the same and methods for their use in one-step RT-PCR are provided. The subject enzyme compositions at least include a mutant **thermostable** DNA polymerase and a mutant reverse transcriptase. In preferred embodiments, the mutant **thermostable** DNA polymerase is an N-terminal deletion mutant of Taq polymerase and the mutant reverse transcriptase is a point mutation mutant of **MMLV**-RT. The subject kits, in addition to the above described mutant **thermostable** DNA polymerase and mutant reverse transcriptase, at least include one of, and usually both of, dNTPs and a buffer composition, where the subject kits may further include additional reagents, including nucleic acids, a **thermostabilizing** agent, a glycine based osmolyte and the like. In practicing the subject methods, a reaction mix that at least includes template RNA, the above described mutant polymerase and reverse transcriptase, dNTPs, buffer, and nucleic acid primers is prepared. The resultant reaction mixture is maintained at a first set of reverse transcription conditions and then a second set of PCR conditions, whereby amplified amounts of DNA from a template RNA(s) are produced.

L9 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
AN 2001:886488 CAPLUS
DN 136:32693
TI Modified or mutated reverse transcriptases with high **thermostability** and uses thereof
IN Smith, Michael D.; Potter, Robert Jason; Dhariwal, Gulshan; Gerard, Gary F.; Rosenthal, Kim
PA Invitrogen Corp., USA
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001092500	A1	20011206	WO 2001-US16861	20010525
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	US 2002090618	A1	20020711	US 2001-845157	20010501
PRAI	US 2000-207196P	P	20000526		
	US 2001-845157	A	20010501		
	US 2001-808124	A	20010515		

AB The present invention provides modified reverse transcriptases with increasing **thermostability**. The invention is generally related to reverse transcriptase enzymes and methods for the reverse transcription of nucleic acid mols., esp. mRNA mols. Specifically, the invention relates to reverse transcriptase enzymes which have been mutated or modified to increase **thermostability**, decrease terminal deoxynucleotidyl transferase activity, and/or increase fidelity, and to methods of producing, amplifying or sequencing nucleic acid mols. (particularly cDNA mols.) using these reverse transcriptase enzymes or compns. The invention also relates to nucleic acid mols. produced by these methods and to the use of such nucleic acid mols. to produce desired polypeptides. The invention also concerns kits comprising such enzymes or compns.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS
AN 2001:573504 CAPLUS
DN 135:149586
TI Improving reverse transcription at high temperatures using **thermostable** CpkB Chaperonin from hyperthermophilic archaeon Pyrococcus
IN Warthoe, Peter
PA Display Systems Biotech A/s, Den.
SO U.S., 26 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6271004	B1	20010807	US 2000-603185	20000626
PRAI DK 1999-897	A	19990625		

AB A method for improved reverse transcription at high temps. is provided, wherein a **thermostable** chaperone protein stabilizes a reverse transcriptase, as well as reduces the RNase H activity of said reverse transcriptase. The invention further relates to a method of producing a polypeptide complex consisting of a Chaperonin and a Moloney murine leukemia virus (MMVL) reverse transcriptase, characterized by having enhanced **thermostability** as well as reduced RNase H activity, compared to a (MMVL) reverse transcriptase alone. The invention further relates to a kit for the prepn. of cDNA from mRNA, comprising either both stabilizing agent and reverse transcriptase or the polypeptide complex of the invention. One particular gene of interest for this invention is the gene encoding the .beta.-subunit of a mol. Chaperonin from the hyperthermophilic archaeon Pyrococcus. The present invention is related to the discovery that the CpkB polypeptide together with a reverse transcriptase generates a system having improved DNA polymerase activity at relative high temps. compared to a reverse transcriptase alone. The invention is further related to the discovery that the CpkB polypeptide inhibits the RNase H activity normally assocd. with the **MMLV** wild type reverse transcriptase.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS
AN 1999:548573 CAPLUS
DN 131:282131
TI Retroviral vectors preloaded with a viral receptor-ligand bridge protein are targeted to specific cell types
AU Boerger, Adrienne L.; Snitkovsky, Sophie; Young, John A. T.
CS Department of Microbiology and Molecular Genetics, Harvard Medical School, Boston, MA, 02115, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(17), 9867-9872
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB Successful targeting methods represent a major hurdle to the use of retroviral vectors in cell-specific gene-delivery applications. We recently described an approach for retroviral targeting with a retroviral receptor-ligand bridge protein that was bound to the cognate cell-surface ligand receptors before viral challenge. We now report a significant improvement made to this viral targeting method by using a related bridge protein, designated TVB-EGF, comprised of the extracellular domain of the TVB receptor for subgroup B avian leukosis virus fused to epidermal growth factor (EGF). The most important activity of TVB-EGF was that it allowed specific viral entry when preloaded onto virions. Furthermore, virions preloaded with TVB-EGF were **thermostable** and could be produced directly from virus-packaging cells. These data suggest an approach for targeting retroviral vectors to specific cell types by using virions preloaded with a retroviral receptor-ligand bridge protein and indicate that these types of bridge proteins may be useful reagents for studying the normal mechanism of retroviral entry.
RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
AN 1998:806816 CAPLUS
DN 130:48291
TI method for highly sensitive nucleic acid detection with Imprint primers for single copy detection
IN Creighton, Steven; Gold, Larry
PA Nexstar Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9855653	A1	19981210	WO 1998-US11457	19980603
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9878136	A1	19981221	AU 1998-78136	19980603
PRAI	US 1997-48886P	P	19970606		
	US 1998-27107	A	19980220		
	WO 1998-US11457	W	19980603		

AB A novel method for the highly selective detection of a specific target nucleic acid sequence in a sample compn. that may contain a large no. of

nucleic acids. A copy of a target nucleic acid sequence is first formed by extension from a first primer complementary to part of the target sequence. A hybrid is then formed between this copy of the target nucleic acid sequence and a second primer, and the detection of the target nucleic acid sequence is based on the formation of pyrophosphate and/or dNMP. The embodiments all involve the establishment of Idling conditions using a hybrid formed between the target nucleic acid and one or more probe primer. The net result of the Idling phenomenon is the prodn. of dNMP and PPi. Imprint primers are described that synthesize a copy, or Imprint, of the target nucleic acid that highly increase the specificity of the technique. These imprint primers are wholly or partly comprised of nuclease resistant nucleic acid residues and labeled with a group such as biotin which permits subsequent attachment to a solid support. This primer is chosen so that it hybridizes to the target nucleic acid at a position that is 3' to the location of the sequences that will later be used for Idling establishment. Trapping of Imprint and elimination of non-imprint nucleic acids is performed using avidin-coated paramagnetic beads binding to biotin. The creation of a solid phase support-bound imprint can drastically reduce the complexity of the sample. Target nucleic acid detection is indicated by PPi or NADH or ATP measured in fluormetric or electrochem. or light anal. assays. The methods have the potential to detect a single copy a target nucleic acid.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 6 MEDLINE DUPLICATE 2
AN 89301163 MEDLINE
DN 89301163 PubMed ID: 2472758
TI Rapid amplification of complementary DNA from small amounts of unfractionated RNA.
AU Doherty P J; Huesca-Contreras M; Dosch H M; Pan S
CS Department of Immunology and Rheumatology, Hospital for Sick Children, Toronto, Ontario, Canada.
NC GM-38420 (NIGMS)
SO ANALYTICAL BIOCHEMISTRY, (1989 Feb 15) 177 (1) 7-10.
Journal code: 0370535. ISSN: 0003-2697.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198908
ED Entered STN: 19900309
Last Updated on STN: 19980206
Entered Medline: 19890810
AB We have combined, in a rapid and straightforward manner, the synthesis and subsequent amplification of individual cDNA sequences from microgram quantities of unfractionated total RNA. Taq1 polymerase, a **thermostable** DNA polymerase, and Moloney murine leukemia virus (**MMLV**) reverse transcriptase share similar buffer conditions; these reactions can be performed sequentially, in a single tube, without the need for purification or changes of buffer after the synthesis of cDNA. In this way, nonspecific losses of material are minimized and the required number of cells is reduced. Cell numbers, particularly from human tissues, can be limiting; the requirement for only small amounts of unfractionated RNA makes possible the isolation and characterization of cDNAs from biological materials available in limited quantities. As a demonstration system, we report the rapid synthesis and amplification of cDNA sequences corresponding to the first exon of human immunoglobulin E (IgE). **MMLV** reverse transcriptase is used with specific (i.e., IgE) or generic (i.e., oligo-[dT(12-18)]) oligomers to prime first strand cDNA synthesis from unfractionated RNA isolated from a human myeloma line, U-266. The necessary primers, deoxynucleotides and Taq1 polymerase,

required for second strand cDNA synthesis and the subsequent logarithmic amplification process, are then added to the reaction mixture. This technique provides a useful means of characterizing expressed and processed gene transcripts.

=> d his

(FILE 'HOME' ENTERED AT 12:50:52 ON 05 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:51:00 ON 05 SEP 2002

```
L1       146494 S REVERSE(W)TRANSCRIPT?
L2        31136 S THERMOSTAB?
L3          138 S L1 (9A) L2
L4           38 S L3 AND (MUTAT? OR MODIF? OR CHANG? OR ALTER?)
L5           24 DUP REM L4 (14 DUPLICATES REMOVED)
L6           19 S L1 (5A) (MUTAT? OR MODIF? OR CHANG? OR ALTER? OR INCREAS? OR
L7           16 DUP REM L6 (3 DUPLICATES REMOVED)
L8            9 S (MMLV OR ALV) AND THERMOSTAB?
L9            6 DUP REM L8 (3 DUPLICATES REMOVED)

=> s l2 (6a) (MMLV or ALV)
L10           1 L2 (6A) (MMLV OR ALV)

=> d bib ab

L10  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
AN   2001:886488  CAPLUS
DN   136:32693
TI   Modified or mutated reverse transcriptases with high thermostability and
     uses thereof
IN   Smith, Michael D.; Potter, Robert Jason; Dhariwal, Gulshan; Gerard, Gary
     F.; Rosenthal, Kim
PA   Invitrogen Corp., USA
SO   PCT Int. Appl., 103 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   WO 2001092500      A1    20011206      WO 2001-US16861  20010525
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 2002090618      A1    20020711      US 2001-845157   20010501
PRAI US 2000-207196P    P     20000526
     US 2001-845157     A     20010501
     US 2001-808124     A     20010515
```

AB The present invention provides modified reverse transcriptases with increasing thermostability. The invention is generally related to reverse transcriptase enzymes and methods for the reverse transcription of nucleic acid mols., esp. mRNA mols. Specifically, the invention relates to reverse transcriptase enzymes which have been mutated or modified to increase thermostability, decrease terminal deoxynucleotidyl transferase activity, and/or increase fidelity, and to methods of producing,

amplifying or sequencing nucleic acid mols. (particularly cDNA mols.) using these reverse transcriptase enzymes or compns. The invention also relates to nucleic acid mols. produced by these methods and to the use of such nucleic acid mols. to produce desired polypeptides. The invention also concerns kits comprising such enzymes or compns.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> dup rem l3
PROCESSING COMPLETED FOR L3
L11 92 DUP REM L3 (46 DUPLICATES REMOVED)

=> d 10 bib

L11 ANSWER 10 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 2001:380819 CAPLUS
DN 134:363664
TI Immunological detection of RNA:DNA hybrids on microarrays
IN Lazar, James G.; Zakel, Joan M.; Strange, Christina M.; Williams, Inna R.; Lorincz, Attila T.
PA Digene Corporation, USA
SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001036681	A2	20010525	WO 2000-US31277	20001114
	WO 2001036681	A3	20011213		
	W: AU, BR, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	US 6277579	B1	20010821	US 1999-440419	19991115
	EP 1230396	A2	20020814	EP 2000-980379	20001114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	US 1999-440419	A	19991115		
	US 2000-707178	A	20001106		
	US 1998-20067	A2	19980206		
	WO 2000-US31277	W	20001114		

=> d 11-92 ti

L11 ANSWER 11 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Method of reversible inactivation of thermostable enzymes using chemical modification under aqueous conditions

L11 ANSWER 12 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Activation of 2 types of modified thermostable DNA polymerases at different stages in the thermo-cycler reaction for nucleic acid amplification and sequencing

L11 ANSWER 13 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI High temperature reverse transcription using mutant DNA polymerases

L11 ANSWER 14 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Method for preparing RNA reverse transcription amplification probes for microarray

L11 ANSWER 15 OF 92 MEDLINE DUPLICATE 4
TI Reverse transcription slippage over the mRNA secondary structure of the LIP1 gene.

L11 ANSWER 16 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Reverse transcription slippage over the mRNA secondary structure of the LIP1 gene.

L11 ANSWER 17 OF 92 MEDLINE DUPLICATE 5
TI Differential expression of gh1 and gh2 genes by competitive rt-pcr in rainbow trout pituitary.

L11 ANSWER 18 OF 92 MEDLINE DUPLICATE 6
TI Development of a strand-specific RT-PCR based assay to detect the replicative form of hepatitis C virus RNA.

L11 ANSWER 19 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI DNA polymerases from hyperthermophiles

L11 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Reverse transcription activity from Bacillus stearothermophilus DNA polymerase in the presence of magnesium

L11 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid ligand inhibitors of thermostable DNA polymerases, method for their selection, and their use in PCR

L11 ANSWER 22 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerases from Thermotoga and mutants and their use in DNA sequencing and amplification

L11 ANSWER 23 OF 92 MEDLINE DUPLICATE 7
TI Melanin binds reversibly to thermostable DNA polymerase and inhibits its activity.

L11 ANSWER 24 OF 92 MEDLINE DUPLICATE 8
TI Hepatitis C virus in lymphoid cells of patients coinfected with human immunodeficiency virus type 1: evidence of active replication in monocytes/macrophages and lymphocytes.

L11 ANSWER 25 OF 92 MEDLINE DUPLICATE 9
TI Quantification of porcine follicle-stimulating hormone receptor messenger ribonucleic acid by reverse transcription-competitive polymerase chain reaction.

L11 ANSWER 26 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function.

L11 ANSWER 27 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Stabilization of DNA polymerases and other enzymes by cationic surfactants

L11 ANSWER 28 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus

L11 ANSWER 29 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Methods for DNA amplification and sequencing

L11 ANSWER 30 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function

L11 ANSWER 31 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Method for reversible modification of thermostable enzymes using aldehydes and its application to nucleic acid amplification

L11 ANSWER 32 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Critical factors in the preparation of representative full-length cDNA libraries. I

L11 ANSWER 33 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 10
TI Detection for HCV with FD-**thermostable reverse transcriptase** mediated RT-nested PCR.

L11 ANSWER 34 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Improved RT-PCR. One-step RT-PCR and mRNA selective PCR

L11 ANSWER 35 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Reverse transcription polymerase chain reaction method for the detection of glycopeptide resistance in enterococci.

L11 ANSWER 36 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI A one-tube nucleic acid extraction and amplification (ERTPCR) method for detecting RNA viruses

L11 ANSWER 37 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI High-efficiency full-length cDNA cloning

L11 ANSWER 38 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI A method of cloning cell- or tissue-specific cDNAs using display of differentially expressed transcripts (DODET)

L11 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Improved **reverse transcription** with **thermostable** DNA-dependent DNA polymerases in presence of betaine

L11 ANSWER 40 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Avian sarcoma-leukosis virus reverse transcriptases with improved properties for use in reverse transcription, amplification and sequencing

L11 ANSWER 41 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Sulfates and acetates for relief of reverse transcriptase inhibition of reverse transcriptase-polymerase chain reaction

L11 ANSWER 42 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Carboxydothermus hydrogenoformans

L11 ANSWER 43 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Anaerocellum thermophilum

L11 ANSWER 44 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Endogenous ribonuclease inhibitors of mammals, cDNAs encoding them, and their uses

L11 ANSWER 45 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid ligand inhibitors to DNA polymerases

L11 ANSWER 46 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus and mutant enzymes with exonuclease activity removed

L11 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Cloning and gene sequence of a thermostable DNA polymerase from Bacillus

pallidus and its use for strand displacement amplification

L11 ANSWER 48 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Chelating agents for improving thermostability of RNA in solution containing metallic ions

L11 ANSWER 49 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI RT-PCR for DNA amplification using thermostable RNase H to improve amplification efficiency and detection sensitivity

L11 ANSWER 50 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI cloning, sequence, and expression of a thermostable DNA polymerase gene from Bacillus pallidus

L11 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Detection of hepatitis G virus replication sites by using highly strand-specific Tth-based reverse transcriptase PCR

L11 ANSWER 52 OF 92 MEDLINE DUPLICATE 11
TI Recombinant His-tagged DNA polymerase. I. Cloning, purification and partial characterization of Thermus thermophilus recombinant DNA polymerase.

L11 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA

L11 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Tertiary structure model of FD-**thermostable reverse transcriptase** (FD-TRT) and its structure-based homology analysis

L11 ANSWER 55 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Characterization of FD-**thermostable reverse transcriptase** (FD-TRT)

L11 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Partial enzymic characteristics of FD **thermostable reverse transcriptase** (FD-TRT)

L11 ANSWER 57 OF 92 MEDLINE DUPLICATE 12
TI Differential display with carboxy-X-rhodamine-labeled primers and the selection of differentially amplified cDNA fragments without cloning.

L11 ANSWER 58 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Thermostable DNA polymerase from Thermoanaerobacter thermohydrosulfuricus and mutant enzymes with exonuclease activity removed

L11 ANSWER 59 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Use of manganese, metal ion buffer, and **thermostable** DNA polymerase for coupled high temperature **reverse transcription** and polymerase chain reaction.

L11 ANSWER 60 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Encapsulation of thermostable enzymes in heat-labile wax beads or liposomes for release upon heating

L11 ANSWER 61 OF 92 MEDLINE DUPLICATE 13
TI A simple reverse transcription-polymerase chain reaction for dengue type 2 virus identification.

L11 ANSWER 62 OF 92 MEDLINE DUPLICATE 14
TI The use of the reverse transcription-competitive polymerase chain reaction

to investigate the in vivo regulation of gene expression in small tissue samples.

L11 ANSWER 63 OF 92 MEDLINE DUPLICATE 15
TI Detection and identification of dengue virus isolates from Brazil by a simplified reverse transcription-polymerase chain reaction (RT-PCR) method.

L11 ANSWER 64 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Methods for **reverse transcription** using **thermostable** DNA polymerase to amplify and detect target RNA

L11 ANSWER 65 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 16
TI RT-PCR-based genotyping for swine major histocompatibility complex (SLA) class II genes.

L11 ANSWER 66 OF 92 MEDLINE DUPLICATE 17
TI Phylogenetic footprinting of the human cytochrome c oxidase subunit VB promoter.

L11 ANSWER 67 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI a thermostable nucleic acid polymerase from Thermus sps17 for use in nucleic acid amplification and the gene encoding it

L11 ANSWER 68 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Use of manganese, metal ion buffer, and **thermostable** DNA polymerase for coupled high temperature **reverse transcription** and polymerase chain reaction.

L11 ANSWER 69 OF 92 MEDLINE DUPLICATE 18
TI [Use of **thermostable** DNA polymerase from Thermus thermophilus KTP in a combined **reverse transcription** and amplification reaction for detecting CD4 receptor mRNA].
Ispol'zovanie termostabil'noi DNK-polimerazy iz Thermus thermophilus KTP v sovmeshchennoi reaktsii obratnoi transkriptsii i amplifikatsii dlia detektsii mRNK retseptora CD-4.

L11 ANSWER 70 OF 92 MEDLINE DUPLICATE 19
TI [Use of **thermostable** DNA polymerase from Thermus thermophilus KTP in a combined **reverse transcription** and amplification reaction of detecting interleukin 2alpha RNA and determining expression of the multidrug resistance gene (MDR-1)].
Ispol'zovanie termostabil'noi DNK-polimerazy iz Thermus thermophilus STP v sovmeshchennoi reaktsii obratnoi transkriptsii i amplifikatsii dlia detektsii RNK interleikina 2alpha i opredelenie ekspressii gena mnozhestvennoi lekarstvennoi ustichivosti (MDR-1).

L11 ANSWER 71 OF 92 MEDLINE DUPLICATE 20
TI Comparison of Mycobacterium 23S rRNA sequences by high-temperature reverse transcription and PCR.

L11 ANSWER 72 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Use of PCR in detection of antisense transcripts in HTLV-I-infected patients and human T-cell lines

L11 ANSWER 73 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Truncated Thermus DNA polymerases with enhanced thermostability and DNA polymerase formulations for enhancement of nucleic acid amplification

L11 ANSWER 74 OF 92 MEDLINE DUPLICATE 21
TI [Use of polymerase chain reaction for determining bcr/abl mRNA in human

chronic myeloleukemia].
Primenenie polimeraznoi tsepnoi reaktsii dlia opredeleniia bcr/abl mRNK pri khronicheskom mieloleikoze cheloveka.

L11 ANSWER 75 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Detection of mRNA expression in a single cell by direct RT-PCR

L11 ANSWER 76 OF 92 MEDLINE DUPLICATE 22
TI Demonstration of in vitro infection of chimpanzee hepatocytes with hepatitis C virus using strand-specific RT/PCR.

L11 ANSWER 77 OF 92 MEDLINE DUPLICATE 23
TI An improved reverse transcription-polymerase chain reaction method to study apolipoprotein gene expression in Caco-2 cells.

L11 ANSWER 78 OF 92 MEDLINE DUPLICATE 24
TI Separate detection of the two complementary RNA strands of hepatitis A virus.

L11 ANSWER 79 OF 92 MEDLINE DUPLICATE 25
TI Confirmation of mutant alpha 1 Na,K-ATPase gene and transcript in Dahl salt-sensitive/JR rats.

L11 ANSWER 80 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Single-step amplification method for RNA

L11 ANSWER 81 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI Efficient extraction of viral RNA for PCR amplification

L11 ANSWER 82 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI PCR-mediated synthesis of a gene coding for the interleukin 1 receptor antagonist

L11 ANSWER 83 OF 92 MEDLINE DUPLICATE 26
TI Molecular cloning of a mouse extracellular signal regulated kinase (erk-1).

L11 ANSWER 84 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI A thermostable nucleic acid polymerase purified from Thermosipho africanus cloning of the gene

L11 ANSWER 85 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI RNA detection by polymerase chain reaction

L11 ANSWER 86 OF 92 MEDLINE DUPLICATE 27
TI Improved detection of hepatitis C virus RNA by reverse transcription and polymerase chain reaction.

L11 ANSWER 87 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Rapid and contamination-safe nested PCR as a one-tube-reaction with **thermostable** RTTH-**reverse-transcriptase** /polymerase and CG-clamp primers.

L11 ANSWER 88 OF 92 CAPLUS COPYRIGHT 2002 ACS
TI **Reverse transcription** using **thermostable** DNA polymerases

L11 ANSWER 89 OF 92 MEDLINE DUPLICATE 28
TI Reverse transcription and DNA amplification by a Thermus thermophilus DNA polymerase.

L11 ANSWER 90 OF 92 MEDLINE DUPLICATE 29

TI Rapid amplification of complementary DNA from small amounts of unfractionated RNA.

L11 ANSWER 91 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI MODIFIED MICROMETHOD FOR DETECTING THE REVERSE TRANSCRIPTASE ACTIVITY OF RETROVIRUSES IN A CULTURE MEDIUM AND IN BIOLOGICAL MATERIALS.

L11 ANSWER 92 OF 92 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI ENZYMATIC SYNTHESIS AND CHARACTERIZATION OF DNA COMPLEMENTARY TO CERULOPLASMIN MESSENGER RNA FROM RAT LIVER.

=> d 88 bib ab

L11 ANSWER 88 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 1991:552514 CAPLUS
DN 115:152514
TI **Reverse transcription** using **thermostable** DNA polymerases
IN Gelfand, David H.; Myers, Thomas W.
PA Cetus Corp., USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 27

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9109944	A2	19910711	WO 1990-US7641	19901221
	WO 9109944	A3	19910822		
	W: AU, CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	US 5322770	A	19940621	US 1989-455611	19891222
	CA 2071213	AA	19910623	CA 1990-2071213	19901221
	AU 9172444	A1	19910724	AU 1991-72444	19901221
	AU 656315	B2	19950202		
	EP 506889	A1	19921007	EP 1991-904087	19901221
	EP 506889	B1	19970402		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 05505105	T2	19930805	JP 1991-504344	19901221
	AT 151112	E	19970415	AT 1991-904087	19901221
	ES 2100945	T3	19970701	ES 1991-904087	19901221
	JP 09224682	A2	19970902	JP 1996-246648	19901221
	JP 2968585	B2	19991025	JP 1990-504344	19901221
	US 5407800	A	19950418	US 1993-80243	19930617
	US 5618703	A	19970408	US 1994-199509	19940222
	US 5641864	A	19970624	US 1994-311612	19940922
	US 5618711	A	19970408	US 1995-384490	19950206
	US 5789224	A	19980804	US 1995-459383	19950602
	US 5795762	A	19980818	US 1995-458819	19950602
PRAI	US 1989-455611	A	19891222		
	US 1989-455967	A	19891222		
	US 1990-585471	A2	19900920		
	US 1986-899241	B2	19860822		
	US 1987-63509	A2	19870617		
	US 1988-143441	B2	19880112		
	US 1990-523394	A2	19900515		
	US 1990-557517	B2	19900724		
	US 1990-590213	B2	19900928		
	US 1990-590466	A2	19900928		
	US 1990-590490	B2	19900928		
	US 1990-609157	B2	19901102		

	JP 1991-502929	A3	19901221
	WO 1990-US7641	A	19901221
	US 1991-746121	B1	19910815
	US 1992-880478	B1	19920506
	US 1993-977434	A1	19930223
	US 1993-82182	A1	19930624
	US 1993-148133	B1	19931102
	US 1994-199509	A1	19940222
	US 1995-384490	A3	19950206

AB A method for reverse transcription of RNA using the heat-stable DNA polymerases of Thermus and without use of reverse transcriptase is described. Optimization expts. and methods for direct amplification of the cDNA are reported.

=> d 54-56 bib ab

L11 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 1998:632665 CAPLUS
DN 130:22145
TI Tertiary structure model of FD-**thermostable reverse transcriptase** (FD-TRT) and its structure-based homology analysis
AU Zhang, Kun; Wang, Shunde; Zheng, Zuohua; Mao, Yumin
CS Department Physiology Biophysics, Fudan University, Shanghai, 200433, Peop. Rep. China
SO Fudan Xuebao, Ziran Kexueban (1998), 37(4), 455-461
CODEN: FHPTAY; ISSN: 0427-7104
PB Shanghai Kexue Jishu Chubanshe
DT Journal
LA Chinese
AB Using automatic homol. modeling methods and taking the crystal structure of Taq polymerase as model block, the authors adopt a combined method to build a tertiary structure model of FD-**thermostable reverse transcriptase** (FD-TRT). The model makes them possible to investigate the structure basis for the functional difference between FD-TRT and other proteins in the DNA polymerase family. Functional sites of the reverse transcriptase are discussed.

L11 ANSWER 55 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 1998:437137 CAPLUS
DN 129:199637
TI Characterization of FD-**thermostable reverse transcriptase** (FD-TRT)
AU Yin, Changchuan; Yan, Xuehen; Zheng, Zuohua; Huang, Xiaoyu; Mao, Yumin
CS State Key Laboratory of Genetic Engineering, Fudan University, Shanghai, Peop. Rep. China
SO Fudan Xuebao, Ziran Kexueban (1998), 37(2), 225-228
CODEN: FHPTAY; ISSN: 0427-7104
PB Shanghai Kexue Jishu Chubanshe
DT Journal
LA Chinese
AB FD **thermostable reverse transcriptase** (FD-TRT) was isolated from a Thermus strain. An optimal assay method of FD-TRT was developed using the yeast rRNA as template. FD-TRT showed optimal activity on the reaction condition of 25 mmol/L Tris-HCl (pH 8.5, 25.degree.C), 25 mmol/L (NH4)2SO4, 2 mmol/L MnCl2, 100 .mu.g/mL gelatin, 5 unit RNasin, 250 .mu.mol/L each of four dNTPs, 1 .mu.Ci 3H-dCTP, 12 .mu.g RNA, and 25 pmol primers. The activity ratios of reverse transcriptase to DNA polymerase were 0.056 and 0.0045 for FD-TRT and Taq DNA polymerase, resp.

L11 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2002 ACS

AN 1998:321879 CAPLUS
DN 129:64711
TI Partial enzymic characteristics of FD **thermostable reverse transcriptase** (FD-TRT)
AU Zheng, Zuo-Hua; Zhou, Zong-Xiang; Yin, Chang-Chuan; Ji, Chao-Neng; Mao, Yu-Min
CS Inst. of Genetics, Fudan Univ., Shanghai, 200433, Peop. Rep. China
SO Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao (1998), 14(2), 170-174
CODEN: ZSHXF2; ISSN: 1007-7626
PB Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao Bianweihui
DT Journal
LA Chinese
AB FD **thermostable reverse transcriptase** (FD-TRT) was isolated from a Thermus strain. Some of its enzymic properties were studied through RT-PCR method. FD-TRT can endure 95.degree.C, and its optimal reaction temp. is around 65-70.degree.C when most of the coiled structure of RNA are opened, thus the high temp. can improve the efficiency of reverse transcription. Also as the specificity of recognition between primer and template is increased, it will improve the specificity of reverse transcription. The optimal reaction condition of FD-TRT is as follows: 25 mmol/L Tris-HCl (pH 8.8), 15 mmol/L (NH4)2SO4, 100 .mu.g/mL gelatin, 500 .mu.mol/L dNTPs, 25 pmol reverse transcription primer, 1 mmol/L Mn-Cl2, 2 U FD-TRT, incubation at 65-70.degree.C, .alpha. globin mRNA can be efficiently detected from less than 5 pg total RNA of human peripheral blood cell with RT-PCR conducted by FD-TRT under the above condition.

=> d 22, 30 bib ab

L11 ANSWER 22 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 2000:46954 CAPLUS
DN 132:103728
TI Thermostable DNA polymerases from Thermotoga and mutants and their use in DNA sequencing and amplification
IN Hughes, A. John; Chatterjee, Deb K.
PA Life Technologies, Inc., USA
SO U.S., 65 pp., Cont.-in-part of U. S. Ser. No. 689,818, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6015668	A	20000118	US 1996-706706	19960906
	US 5912155	A	19990615	US 1995-370190	19950109
	US 5939301	A	19990817	US 1995-537400	19951002
PRAI	US 1994-316423	B2	19940930		
	US 1995-370190	A2	19950109		
	US 1995-525057	B2	19950908		
	US 1995-537397	B1	19951002		
	US 1995-537400	A2	19951002		
	US 1995-576759	A2	19951221		
	US 1996-689818	B2	19960814		

AB The method of synthesizing, sequencing, and amplifying a double strand DNA using the Thermotoga DNA polymerase and the kit required are disclosed. The invention relates to a thermostable DNA polymerase from Thermotoga neapolitana (Tne) and mutants. The mutant DNA polymerase has at least one mutation selected from the group consisting of (1) a first mutation that substantially reduces or eliminates 3'.fwdarw.5' exonuclease activity of said DNA polymerase; (2) a second mutation that substantially reduces or eliminates 5'.fwdarw.3' exonuclease activity of said DNA polymerase; (3) a

third mutation in the O helix of said DNA polymerase resulting in said DNA polymerase becoming non-discriminating against dideoxynucleotides. The present invention also relates to the cloning and expression of the wild type or mutant DNA polymerases in E. coli, to DNA mols. contg. the cloned gene, and to host cells which express said genes.

RE.CNT 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 30 OF 92 CAPLUS COPYRIGHT 2002 ACS
AN 1999:511279 CAPLUS
DN 131:140473
TI Direct detection of RNA mediated by reverse transcriptase lacking RNAse H function
IN De La Rosa, Abel; Collier, Clayton D.
PA Digene Corporation, USA
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940224	A1	19990812	WO 1999-US2382	19990203
	W: AU, CA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5994079	A	19991130	US 1998-20067	19980206
	CA 2320102	AA	19990812	CA 1999-2320102	19990203
	AU 9925811	A1	19990823	AU 1999-25811	19990203
	AU 742955	B2	20020117		
	EP 1053354	A1	20001122	EP 1999-905711	19990203
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-20067	A	19980206		
	WO 1999-US2382	W	19990203		

AB Disclosed is a method of detecting RNA mols. of interest in which reverse transcription primers unique to the RNA mol. of interest are used for reverse transcribing the RNA with a reverse transcriptase lacking RNAse H function and the resulting RNA/DNA hybrid is detected with an antibody specific for RNA/DNA hybrids. This method can be used to detect the presence of one or many specific RNA mols. which may be present in a sample, including RNA from different organisms (such as viruses, bacteria, fungi, plants, and animals), or RNA indicative of an infection, a disease state, or predisposition to a disease in an animal. The specificity of detection is increased relative to current detection methods involving probe hybridization since the reverse transcription primers are shorter and less subject to non-specific hybridization. Specificity of the disclosed method can also be increased by using a **thermostable reverse transcriptase** and performing **reverse transcription** at a high temp. The disclosed method can also be used to detect reverse transcriptase activity in a sample and to identify inhibitors of reverse transcriptase. Also disclosed is a method for sequencing target RNA mols. using reverse transcriptase lacking an RNAse H function. Detection of HIV-1 RNA in different samples with a 23-nucleotide biotinylated oligonucleotide as the extension primers was demonstrated.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 12:50:52 ON 05 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:51:00 ON 05 SEP 2002

L1	146494	S REVERSE(W)TRANSCRIPT?
L2	31136	S THERMOSTAB?
L3	138	S L1 (9A) L2
L4	38	S L3 AND (MUTAT? OR MODIF? OR CHANG? OR ALTER?)
L5	24	DUP REM L4 (14 DUPLICATES REMOVED)
L6	19	S L1 (5A) (MUTAT? OR MODIF? OR CHANG? OR ALTER? OR INCREAS? OR
L7	16	DUP REM L6 (3 DUPLICATES REMOVED)
L8	9	S (MMLV OR ALV) AND THERMOSTAB?
L9	6	DUP REM L8 (3 DUPLICATES REMOVED)
L10	1	S L2 (6A) (MMLV OR ALV)

```
=> file medline biosis caplus
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'MEDLINE' ENTERED AT 07:11:36 ON 10 SEP 2002

FILE 'BIOSIS' ENTERED AT 07:11:36 ON 10 SEP 2002
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FILE 'CAPLUS' ENTERED AT 07:11:36 ON 10 SEP 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> s (divers? or variab?) (5a) (mmlv) (3a) reverse(w)transcriptase#
L1            0 (DIVERS? OR VARIAB?) (5A) (MMLV) (3A) REVERSE(W) TRANSCRIPTASE#

=> s (divers? or variab?) and (mmlv) (3a) reverse(w)transcriptase#
L2            0 (DIVERS? OR VARIAB?) AND (MMLV) (3A) REVERSE(W) TRANSCRIPTASE#

=> s (divers? or variab?) and reverse(w)transcriptase#
L3         4640 (DIVERS? OR VARIAB?) AND REVERSE(W) TRANSCRIPTASE#

=> s (divers? or variab?) (7a) reverse(w)transcriptase#
L4          112 (DIVERS? OR VARIAB?) (7A) REVERSE(W) TRANSCRIPTASE#

=> s l4 and mmlv
L5            0 L4 AND MMLV

=> s l4 and mlv
L6            0 L4 AND MLV

=> dup rem l4
PROCESSING COMPLETED FOR L4
L7           57 DUP REM L4 (55 DUPLICATES REMOVED)

=> d 1-57 ti

L7   ANSWER 1 OF 57  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Genetic diversity of protease and reverse
     transcriptase sequences in non-subtype-B human immunodeficiency
     virus type 1 strains: Evidence of many minor drug resistance mutations in
     treatment-naive patients.

L7   ANSWER 2 OF 57     MEDLINE                              DUPLICATE 1
TI   Isotype-switched immunoglobulin genes with a high load of somatic
     hypermutation and lack of ongoing mutational activity are prevalent in
     mediastinal B-cell lymphoma.

L7   ANSWER 3 OF 57  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI   Diversity, origin, and distribution of retrotransposons (gypsy and copia)
     in conifers.

L7   ANSWER 4 OF 57  CAPLUS  COPYRIGHT 2002 ACS
TI   Targeting human immunodeficiency virus type 1 reverse transcriptase by
     intracellular expression of single-chain variable fragments to inhibit
     early stages of the viral life cycle. [Erratum to document cited in
     CA124:340469]

L7   ANSWER 5 OF 57     MEDLINE                              DUPLICATE 2
```

TI Possible regulation of telomerase activity by transcription and alternative splicing of telomerase reverse transcriptase in human melanoma.

L7 ANSWER 6 OF 57 MEDLINE DUPLICATE 3
TI Somatostatin induces migration of acute myeloid leukemia cells via activation of somatostatin receptor subtype 2.

L7 ANSWER 7 OF 57 MEDLINE DUPLICATE 4
TI Human immunodeficiency virus type 1 protease genotype predicts immune and viral responses to combination therapy with protease inhibitors (PIs) in PI-naive patients.

L7 ANSWER 8 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Isotype-switched immunoglobulin genes with a high load of somatic hypermutation and lack of ongoing mutational activity are prevalent in mediastinal B cell lymphoma.

L7 ANSWER 9 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Effects of HIV-1 clade diversity on HIV-1 virulence and antiretroviral drug sensitivity

L7 ANSWER 10 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Pathogenicity and DNA sequence of variable region of VP2 gene of cell-adapted strain X of infectious bursal disease virus

L7 ANSWER 11 OF 57 MEDLINE DUPLICATE 5
TI Genetic **diversity** of protease and **reverse transcriptase** sequences in non-subtype-B human immunodeficiency virus type 1 strains: evidence of many minor drug resistance mutations in treatment-naive patients.

L7 ANSWER 12 OF 57 MEDLINE DUPLICATE 6
TI Analytical variables of reverse transcription-polymerase chain reaction-based detection of disseminated prostate cancer cells.

L7 ANSWER 13 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Partial Molecular Alignment via Local Structure Analysis

L7 ANSWER 14 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 7
TI Expression of Trigonopsis variabilis D-amino acid oxidase gene in Escherichia coli and characterization of its inactive mutants.

L7 ANSWER 15 OF 57 MEDLINE DUPLICATE 8
TI Functional and genetic integrity of the CD8 T-cell repertoire in advanced HIV infection.

L7 ANSWER 16 OF 57 MEDLINE DUPLICATE 9
TI Sequence **diversity** of the **reverse transcriptase** of human immunodeficiency virus type 1 from untreated Brazilian individuals.

L7 ANSWER 17 OF 57 MEDLINE DUPLICATE 10
TI Telomerase and the maintenance of chromosome ends.

L7 ANSWER 18 OF 57 MEDLINE DUPLICATE 11
TI The impact of biochemical methods for single muscle fibre analysis.

L7 ANSWER 19 OF 57 MEDLINE
TI Oligoclonal expansions of T-cell repertoire in gastric mucosa associated lymphoid tissue type B-cell lymphoma and adjacent gastritis.

L7 ANSWER 20 OF 57 MEDLINE DUPLICATE 12
TI Antiendotoxin agents share molecular homology within their lipopolysaccharide binding domains.

L7 ANSWER 21 OF 57 MEDLINE DUPLICATE 13
TI A molecular-field-based similarity study of non-nucleoside HIV-1 reverse transcriptase inhibitors.

L7 ANSWER 22 OF 57 MEDLINE DUPLICATE 14
TI Haemophilus ducreyi secretes a filamentous hemagglutinin-like protein.

L7 ANSWER 23 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Variability in repeated consecutive measurements of plasma human immunodeficiency virus RNA in persons receiving stable nucleoside reverse transcriptase inhibitor therapy or no treatment

L7 ANSWER 24 OF 57 MEDLINE DUPLICATE 15
TI Consensus-degenerate hybrid oligonucleotide primers for amplification of distantly related sequences.

L7 ANSWER 25 OF 57 MEDLINE DUPLICATE 16
TI Possible roles of nucleocapsid protein of MoMuLV in the specificity of proviral DNA synthesis and in the genetic variability of the virus.

L7 ANSWER 26 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI A quantum molecular similarity approach to anti-HIV activity

L7 ANSWER 27 OF 57 MEDLINE
TI Gene expression of malignant rhabdoid tumor cell lines by reverse transcriptase-polymerase chain reaction.

L7 ANSWER 28 OF 57 MEDLINE DUPLICATE 17
TI Structural variation among retroviral primer-DNA junctions: solution structure of the HIV-1 (-)-strand Okazaki fragment r(gcca)d(CTGC).d(GCAGTGGC).

L7 ANSWER 29 OF 57 MEDLINE DUPLICATE 18
TI Preparation of an antifibrin thrombus-specific murine/human chimeric monoclonal antibody Fab fragment in Escherichia coli.

L7 ANSWER 30 OF 57 MEDLINE DUPLICATE 19
TI Evidence of a butterfly-like configuration of structurally **diverse** allosteric inhibitors of the HIV-1 **reverse transcriptase** .

L7 ANSWER 31 OF 57 MEDLINE DUPLICATE 20
TI T cell receptor clonal diversity following allogeneic marrow grafting.

L7 ANSWER 32 OF 57 MEDLINE DUPLICATE 21
TI Assessment of a standardized reverse-transcriptase PCR assay for quantifying HIV-1 RNA in plasma and serum.

L7 ANSWER 33 OF 57 MEDLINE DUPLICATE 22
TI Preparation of samples for polymerase chain reaction in situ.

L7 ANSWER 34 OF 57 MEDLINE DUPLICATE 23
TI HIV as the cause of AIDS.

L7 ANSWER 35 OF 57 MEDLINE DUPLICATE 24
TI Multiple cysteine proteinases of the pathogenic protozoon Tritrichomonas foetus: identification of seven diverse and differentially expressed

genes.

L7 ANSWER 36 OF 57 MEDLINE
TI Oligoclonal expansion of V delta 1+ gamma/delta T-cells in systemic sclerosis patients.

L7 ANSWER 37 OF 57 MEDLINE DUPLICATE 25
TI Comparative anti-HIV evaluation of **diverse** HIV-1-specific **reverse transcriptase** inhibitor-resistant virus isolates demonstrates the existence of distinct phenotypic subgroups.

L7 ANSWER 38 OF 57 MEDLINE DUPLICATE 26
TI Phylogenetic comparison of retron elements among the myxobacteria: evidence for vertical inheritance.

L7 ANSWER 39 OF 57 MEDLINE DUPLICATE 27
TI Kinetic and mutational analysis of human immunodeficiency virus type 1 reverse transcriptase inhibition by inophyllums, a novel class of non-nucleoside inhibitors.

L7 ANSWER 40 OF 57 MEDLINE DUPLICATE 28
TI Quantitation of metallothionein mRNA by RT-PCR and chemiluminescence.

L7 ANSWER 41 OF 57 MEDLINE
TI Is there a role for non-nucleoside reverse transcriptase inhibitors in the treatment of HIV infection?.

L7 ANSWER 42 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Comparative biological and biochemical evaluation of a **diverse** group of nonnucleoside **reverse transcriptase** inhibitors.

L7 ANSWER 43 OF 57 MEDLINE DUPLICATE 29
TI Biological and biochemical anti-HIV activity of the benzothiadiazine class of nonnucleoside reverse transcriptase inhibitors.

L7 ANSWER 44 OF 57 MEDLINE DUPLICATE 30
TI An insert of seven amino acids confers functional differences between smooth muscle myosins from the intestines and vasculature.

L7 ANSWER 45 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Use of a PCR-based method to characterize protein kinase C isoform expression in cardiac cells

L7 ANSWER 46 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI **Variability** in the **reverse transcriptase** gene, studied by direct DNA sequencing.

L7 ANSWER 47 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI HIV-1 reverse transcriptase: a diversity generator and quasispecies regulator

L7 ANSWER 48 OF 57 MEDLINE DUPLICATE 31
TI Comparison of HIV-1 and avian myeloblastosis virus reverse transcriptase fidelity on RNA and DNA templates.

L7 ANSWER 49 OF 57 MEDLINE DUPLICATE 32
TI Retroelements in bacteria.

L7 ANSWER 50 OF 57 MEDLINE DUPLICATE 33
TI Two independent retrons with highly **diverse reverse transcriptases** in Myxococcus xanthus.

L7 ANSWER 51 OF 57 CAPLUS COPYRIGHT 2002 ACS
TI Generation of diversity in retroviruses

L7 ANSWER 52 OF 57 MEDLINE DUPLICATE 34
TI Cell surface phenotype and human T lymphotropic virus type 1 antigen expression in 12 T cell lines derived from peripheral blood and cerebrospinal fluid of West Indian, Guyanese and African patients with tropical spastic paraparesis.

L7 ANSWER 53 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI PHYLOGENETIC EVIDENCE FOR THE TRANSFER OF CASEOBACTER-POLYMORPHUS CROMBACH TO THE GENUS CORYNEBACTERIUM.

L7 ANSWER 54 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI HUMAN T LYMPHOTROPIC VIRUSES AND DISEASES OF MAN.

L7 ANSWER 55 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI MOLECULAR CLONING OF 7 MOUSE IMMUNO GLOBULIN K CHAIN MESSENGER RNA.

L7 ANSWER 56 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 35
TI NONCODING NUCLEOTIDE SEQUENCE IN THE 3-PRIME TERMINAL REGION OF A MOUSE IMMUNO GLOBULIN KAPPA CHAIN MESSENGER RNA DETERMINED BY ANALYSIS OF COMPLEMENTARY DNA.

L7 ANSWER 57 OF 57 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI DEMONSTRATION THAT A MOUSE IMMUNO GLOBULIN LIGHT CHAIN MESSENGER RNA HYBRIDIZES EXCLUSIVELY WITH UNIQUE DNA.

=> s mmlv
L8 275 MMLV

=> s m(w)mlv
L9 140 M(W) MLV

=> s l8 or l9
L10 413 L8 OR L9

=> s l10 (9a) reverse (w) transcript?
L11 133 L10 (9A) REVERSE (W) TRANSCRIPT?

=> dup rem l11
PROCESSING COMPLETED FOR L11
L12 75 DUP REM L11 (58 DUPLICATES REMOVED)

=> d 1-75 ti

L12 ANSWER 1 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Inhibition of RNase using RNA heteropolymer in reverse transcription reaction

L12 ANSWER 2 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI A novel gene organization: Intronic snoRNA gene clusters from Oryza sativa.

L12 ANSWER 3 OF 75 MEDLINE DUPLICATE 1
TI The role of template-primer in protection of reverse transcriptase from thermal inactivation.

L12 ANSWER 4 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Base pairing properties of 8-oxo-7,8-dihydroadenosine in cDNA synthesis by reverse transcriptases.

L12 ANSWER 5 OF 75 MEDLINE DUPLICATE 2
TI Low efficiency of the Moloney murine leukemia virus reverse transcriptase during reverse transcription of rare t(8;21) fusion gene transcripts.

L12 ANSWER 6 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Low efficiency of the Moloney murine leukemia virus reverse transcriptase during reverse transcription of rare t(8;21) fusion gene transcripts.

L12 ANSWER 7 OF 75 MEDLINE DUPLICATE 3
TI Transcriptional profiling of a human papillomavirus 33-positive squamous epithelial cell line which acquired a selective growth advantage after viral integration.

L12 ANSWER 8 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Evidence that BmTXK.beta.-BmKCT cDNA from Chinese scorpion Buthus martensii Karsch is an artifact generated in the reverse transcription process

L12 ANSWER 9 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Localization of transcripts corresponding to the major allergen from olive pollen (Ole e I) by electron microscopic non-radioactive in situ RT-PCR.

L12 ANSWER 10 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI GB virus C infection in blood donors from Cordoba, Argentina.

L12 ANSWER 11 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Modified or mutated reverse transcriptases with high thermostability and uses thereof

L12 ANSWER 12 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI High fidelity reverse transcriptases which have been modified or mutated and uses thereof

L12 ANSWER 13 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI one step RT-PCR methods using enzyme mixes and kits comprising mutant thermostable polymerase and reverse transcriptase

L12 ANSWER 14 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Improving reverse transcription at high temperatures using thermostable CpkB Chaperonin from hyperthermophilic archaeon Pyrococcus

L12 ANSWER 15 OF 75 MEDLINE DUPLICATE 4
TI Detection of the 5'-cap structure of messenger RNAs with the use of the cap-jumping approach.

L12 ANSWER 16 OF 75 MEDLINE DUPLICATE 5
TI Reverse transcriptase incorporation of 1,5-anhydrohexitol nucleotides.

L12 ANSWER 17 OF 75 MEDLINE DUPLICATE 6
TI A directed approach to improving the solubility of Moloney murine leukemia virus reverse transcriptase.

L12 ANSWER 18 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Structure of a pseudo-16-mer DNA with stacked guanines and two G-A mispairs complexed with the N-terminal fragment of Moloney murine leukemia virus reverse transcriptase

L12 ANSWER 19 OF 75 MEDLINE DUPLICATE 7
TI Reverse transcriptase template switching: a SMART approach for full-length

cDNA library construction.

L12 ANSWER 20 OF 75 MEDLINE DUPLICATE 8
TI Construction of cDNA library of Eimeria tenella sporulated oocysts.

L12 ANSWER 21 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Construction of cDNA library of Epinephelus cpoioies leukocytes

L12 ANSWER 22 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Cytokine gene expression microarrays in the Rhesus model of Lyme neuroborreliosis.

L12 ANSWER 23 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Comparative expression profiles of ETV6, CBFA2 and ETV6-CBFA2 in disease and remission states in childhood acute leukemia.

L12 ANSWER 24 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Mutant form reverse transcriptase of Moloney murine leukemia virus with improved reactivity at high temperature

L12 ANSWER 25 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI In situ hybrdization for RNA: Nonradioactive probe: ss cDNA probe.

L12 ANSWER 26 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Analysis of plus-strand primer selection, removal, and reutilization by retroviral reverse transcriptases

L12 ANSWER 27 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI One-step RT-PCR for detection of bluetongue virus RNA

L12 ANSWER 28 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Construction of oocyte cDNA libraries of gynogenetic silver crucian carp and gonochoristic color crucian carp and cloning of their cyclin A1 cDNAs

L12 ANSWER 29 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Exonuclease III-generated series of homologous competitor DNA fragments for competitive PCR.

L12 ANSWER 30 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Reverse transcription of a naturally occurring nonretroviral RNA produces a precise deletion in the majority of its cDNA products

L12 ANSWER 31 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Identification of age-associated genes in rat and mice brain by differential display PCR with selected primers.

L12 ANSWER 32 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Analysis of gene expression following spinal cord injury using cDNA microarray technology.

L12 ANSWER 33 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Insertional RNA editing in metazoan mitochondria: The cytochrome b gene in the nematode Teratocephalus lirellus.

L12 ANSWER 34 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Update to: Automated recording of RNA differential display patterns from pig granulosa cells.

L12 ANSWER 35 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 9
TI Misreading of RNA templates containing 8-oxo-7,8-dihydroguanosine or 8-oxo-2'-O-methylguanosine in cDNA synthesis by reverse transcriptases.

L12 ANSWER 36 OF 75 MEDLINE DUPLICATE 10
TI Molecular identification and immunolocalization of the water channel protein aquaporin 1 in CBCECs.

L12 ANSWER 37 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 11
TI Cloning and sequencing of the cDNA encoding for pokeweed anti-viral protein (PAP) and construction of its plant expression vector.

L12 ANSWER 38 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Molecular cloning of E-selectin from human umbilical vein endothelial cells

L12 ANSWER 39 OF 75 MEDLINE DUPLICATE 12
TI Oligoribonucleotides containing 8-oxo-7,8-dihydroguanosine and 8-oxo-7,8-dihydro-2'-O-methylguanosine: synthesis and base pairing properties.

L12 ANSWER 40 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Quantitative determination of cyclooxygenase-2 (COX-2) mRNA expression in peripheral blood leukocytes with RT-PCR and fluorescent dye capillary electrophoresis.

L12 ANSWER 41 OF 75 MEDLINE DUPLICATE 13
TI A sensitive and robust method for measles RNA detection.

L12 ANSWER 42 OF 75 MEDLINE DUPLICATE 14
TI Efficient in vitro inhibition of HIV-1 gag reverse transcription by peptide nucleic acid (PNA) at minimal ratios of PNA/RNA.

L12 ANSWER 43 OF 75 MEDLINE DUPLICATE 15
TI Synthesis of full-length potyvirus cDNA copies suitable for the analysis of genome polymorphism.

L12 ANSWER 44 OF 75 MEDLINE DUPLICATE 16
TI Detection of the induction of Salmonella enterotoxin gene expression by contact with epithelial cells with RT-PCR.

L12 ANSWER 45 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI The type of reverse transcriptase affects the sensitivity of some reverse transcription PCR methods

L12 ANSWER 46 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Representative cDNA synthesis from nanogram level of total RNA: A novel method using the template switching reaction catalyzed by **M-MLV reverse transcriptase**.

L12 ANSWER 47 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Anti-HIV activities and mechanisms of antisense oligonucleotides

L12 ANSWER 48 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Fidelity of **MMLV reverse transcriptase** and Thermus thermophilus DNA polymerase during **reverse transcription** and DNA amplification.

L12 ANSWER 49 OF 75 MEDLINE
TI Inhibition of gene expression by antisense DNA.

L12 ANSWER 50 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Use of 33P-labeled primer increases the sensitivity and specificity of mRNA differential display

L12 ANSWER 51 OF 75 MEDLINE DUPLICATE 17
TI Two different PCR assays to detect enteroviral RNA in CSF samples from patients with acute aseptic meningitis.

L12 ANSWER 52 OF 75 MEDLINE DUPLICATE 18
TI Detection of hepatitis C virus RNA by a reliable, optimized single-step reverse transcription polymerase chain reaction.

L12 ANSWER 53 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Fidelity of **MMLV reverse transcriptase** and Thermus thermophilus DNA polymerase during **reverse transcription** and DNA amplification.

L12 ANSWER 54 OF 75 MEDLINE DUPLICATE 19
TI Comparison of **M-MLV reverse transcriptase** and Tth polymerase activity in RT-PCR of samples with low virus burden.

L12 ANSWER 55 OF 75 MEDLINE DUPLICATE 20
TI [Analysis of effectiveness of cDNA synthesis, induced using complementary primers and primers containing a noncomplementary base matrix].
Analiz effektivnost' sinteza kDNK, initsiirovannogo s komplementarnykh praimerov i praimerov, soderzhashchikh nekomplementarnye matritse osnovaniia.

L12 ANSWER 56 OF 75 MEDLINE DUPLICATE 21
TI [Expression of cytokines and interferon-related genes in the mouse embryo].
Expression des genes des cytokines et des genes associes a l'interferon chez l'embryon de la souris.

L12 ANSWER 57 OF 75 MEDLINE DUPLICATE 22
TI Expression and role of c-myc protooncogene in murine preimplantation embryonic development.

L12 ANSWER 58 OF 75 MEDLINE DUPLICATE 23
TI Lactoferrin cDNA. Expression and in vitro mutagenesis.

L12 ANSWER 59 OF 75 MEDLINE DUPLICATE 24
TI [Derivatives of ddUTP, modified at the 5-position of uridine, as substrate terminators of reverse transcriptase. Hydrolysis of oligonucleotides, terminated by these analogs, by phosphodiesterase I].
Proizvodnye ddUTP, modifitsirovannye v 5-polozhenii uridina, kak substratnye terminatory obratnykh transkriptaz. Gidroliz oligonukleotidov, terminirovannykh etimi analogami, fosfodiesterazoi I.

L12 ANSWER 60 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI A 'one tube reaction' for synthesis and amplification of total cDNA from small numbers of cells

L12 ANSWER 61 OF 75 MEDLINE DUPLICATE 25
TI [Expression of cytokine messenger RNA in murine placenta].
Expression de l'ARN messager des cytokines dans le placenta de la souris.

L12 ANSWER 62 OF 75 MEDLINE DUPLICATE 26
TI [Reverse transcriptase of the human immunodeficiency virus: isolation and substrate specificity].
Obratnaia transkriptaza virusa immunodefitsita cheloveka: vydelenie i substratnaia spetsifichenost'.

L12 ANSWER 63 OF 75 MEDLINE DUPLICATE 27

TI Ribosome initiation complex formation with the pseudoknotted alpha operon messenger RNA.

L12 ANSWER 64 OF 75 MEDLINE DUPLICATE 28
TI [Induction of messenger RNA of cytokines by Herpes simplex virus infection in mice].
Induction de l'ARN messager des cytokines par l'infection de l'Herpes simplex virus chez la souris.

L12 ANSWER 65 OF 75 MEDLINE DUPLICATE 29
TI [Expression of cytokine messenger RNA in mice in physiological conditions].
Expression de l'ARN messager des cytokines chez la souris dans des conditions physiologiques.

L12 ANSWER 66 OF 75 MEDLINE DUPLICATE 30
TI c-MYC mRNA is present in human sperm cells.

L12 ANSWER 67 OF 75 MEDLINE DUPLICATE 31
TI Quantitation of changes in the expression of multiple genes by simultaneous polymerase chain reaction.

L12 ANSWER 68 OF 75 MEDLINE DUPLICATE 32
TI Exogenous primer-independent cDNA synthesis with commercial reverse transcriptase preparations on plant virus RNA templates.

L12 ANSWER 69 OF 75 CAPLUS COPYRIGHT 2002 ACS
TI Nucleotide sequence of a porcine prepro atrial natriuretic peptide (ANP) cDNA

L12 ANSWER 70 OF 75 MEDLINE DUPLICATE 33
TI Low-ratio hybridization subtraction.

L12 ANSWER 71 OF 75 MEDLINE DUPLICATE 34
TI Rapid amplification of complementary DNA from small amounts of unfractionated RNA.

L12 ANSWER 72 OF 75 MEDLINE DUPLICATE 35
TI Alpha-anomeric DNA: beta-RNA hybrids as new synthetic inhibitors of Escherichia coli RNase H, Drosophila embryo RNase H and **M-MLV reverse transcriptase**.

L12 ANSWER 73 OF 75 MEDLINE DUPLICATE 36
TI Isolation of cloned Moloney murine leukemia virus reverse transcriptase lacking ribonuclease H activity.

L12 ANSWER 74 OF 75 MEDLINE DUPLICATE 37
TI Cloning and overexpression of Moloney murine leukemia virus reverse transcriptase in Escherichia coli.

L12 ANSWER 75 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Expression of cytokine and interferon-related genes in mouse embryo.

=> d 53 bib ab

L12 ANSWER 53 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1995:326610 BIOSIS
DN PREV199598340910
TI Fidelity of **MMLV reverse transcriptase** and Thermus thermophilus DNA polymerase during **reverse transcription** and DNA amplification.

AU Myers, Thomas W.; Sigua, Christopher L.; Lawyer, Frances C.; Gelfand, David H.
CS Program Core Res., Roche Molecular Systems, Alameda, CA 94501 USA
SO Journal of Cellular Biochemistry Supplement, (1995) Vol. 0, No. 21A, pp. 302.
Meeting Info.: Keystone Symposium on Repair and Processing of DNA Damage Taos, New Mexico, USA March 23-29, 1995
ISSN: 0733-1959.
DT Conference
LA English

=> d 48 bib ab

L12 ANSWER 48 OF 75 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 1995:286429 BIOSIS
DN PREV199598300729
TI Fidelity of **MMLV reverse transcriptase** and Thermus thermophilus DNA polymerase during **reverse transcription** and DNA amplification.
AU Sigua, Christopher L.; Lawyer, Frances C.; Gelfand, David H.; Myers, Thomas W.
CS Program Core Res., Roche Molecular Systems, Alameda, CA 94501 USA
SO FASEB Journal, (1995) Vol. 9, No. 6, pp. A1336.
Meeting Info.: Annual Meeting of the American Society for Biochemistry and Molecular Biology San Francisco, California, USA May 21-25, 1995
ISSN: 0892-6638.
DT Conference
LA English

=> d 24 45 bib ab

L12 ANSWER 24 OF 75 CAPLUS COPYRIGHT 2002 ACS
AN 2000:344167 CAPLUS
DN 133:2042
TI Mutant form reverse transcriptase of Moloney murine leukemia virus with improved reactivity at high temperature
IN Arakawa, Taku; Nishiya, Yoshiaki; Kawakami, Fumikiyo; Kawamura, Yoshihisa
PA Toyobo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000139457	A2	20000523	JP 1998-319241	19981110

AB A mutant form enzyme (V224M + D584N) of Moloney murine leukemia virus (**MMLV**)-derived **reverse transcriptase** is provided by point mutation so that the reactivity at a high temp. range (esp., extending ability at 42-60.degree.C) is improved comparing to the wild type and the conventional mutant, and the full-length cDNA is obtained. The mutant enzyme carries no substantial RNase H activity, and contains Tyr-Met-Asp-Asp sequence instead of Tyr-Val-Asp-Asp for the conserved region Tyr-X-Asp-Asp. A vector carrying the recombinant DNA encoding this mutant enzyme, and recombinant host cells (Escherichia coli) transformed using this vector, are claimed.

L12 ANSWER 45 OF 75 CAPLUS COPYRIGHT 2002 ACS
AN 1997:258097 CAPLUS
DN 126:302153

TI The type of reverse transcriptase affects the sensitivity of some reverse transcription PCR methods
AU Barragan-Gonzalez, E.; Lopez-Guerrero, J. A.; Bolufer-Gilabert, P.; Sanz-Alonso, M.; De la Rubia-Comos, J.; Sempere-Talens, A.
CS Molecular Biology Lab., Dep. Clinical Biochem., Hospital Univ. La Fe, Valencia, 46009, Spain
SO Clinica Chimica Acta (1997), 260(1), 73-83
CODEN: CCATAR; ISSN: 0009-8981
PB Elsevier
DT Journal
LA English
AB A comparison of the efficacy of avian myelomatosis virus (AMV) vs. murine moloney leukemia virus (**MMLV**) **reverse transcriptase** in PCR mutation detection.

=> d 17 bib ab

L12 ANSWER 17 OF 75 MEDLINE DUPLICATE 6
AN 2001520141 MEDLINE
DN 21451146 PubMed ID: 11567084
TI A directed approach to improving the solubility of Moloney murine leukemia virus reverse transcriptase.
AU Das D; Georgiadis M M
CS Waksman Institute and Department of Chemistry and Chemical Biology, Rutgers University, Piscataway, New Jersey 08854, USA.
NC GM 55026 (NIGMS)
SO PROTEIN SCIENCE, (2001 Oct) 10 (10) 1936-41.
Journal code: 9211750. ISSN: 0961-8368.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200112
ED Entered STN: 20010924
Last Updated on STN: 20020122
Entered Medline: 20011205
AB One of the difficulties that can impede structural work on a molecule of interest is limited solubility. Although functionally similar to the human immunodeficiency virus type-1 reverse transcriptase (HIV-1 RT), the Moloney murine leukemia virus reverse transcriptase (**MMLV** RT) differs both in architecture and solubility properties. **Reverse transcriptase** is an essential retroviral enzyme that replicates the single-stranded RNA genome of the retrovirus producing a double-stranded DNA copy, which is subsequently integrated into the host's genome. We have introduced a single amino acid substitution in the connection domain of an N-terminally truncated MMLV RT (L435K) that significantly improves the solubility of the enzyme eliminating the need for nonionic detergents in buffering storage solutions. The substituted enzyme retains near wild-type polymerase activity. An important consequence of the improved solubility of the L435K MMLV RT has been the ability to obtain diffraction quality crystals.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	61.44	61.65

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.24	-1.24

FILE 'STNGUIDE' ENTERED AT 07:16:45 ON 10 SEP 2002

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Aug 30, 2002 (20020830/UP).

=> d 73 bib ab
YOU HAVE REQUESTED DATA FROM FILE 'MEDLINE, BIOSIS, CAPLUS' - CONTINUE? (Y)/N:y

L12 ANSWER 73 OF 75 MEDLINE DUPLICATE 36
AN 88124200 MEDLINE
DN 88124200 PubMed ID: 2448747
TI Isolation of cloned Moloney murine leukemia virus reverse transcriptase lacking ribonuclease H activity.
AU Kotewicz M L; Sampson C M; D'Alessio J M; Gerard G F
CS Molecular Biology Research and Development, Bethesda Research Laboratories, Life Technologies, Inc., Gaithersburg, MD 20877.
SO NUCLEIC ACIDS RESEARCH, (1988 Jan 11) 16 (1) 265-77.
Journal code: 0411011. ISSN: 0305-1048.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198803
ED Entered STN: 19900308
Last Updated on STN: 19970203
Entered Medline: 19880307
AB Retroviral reverse transcriptase possesses DNA polymerase and ribonuclease H (RNase H) activity within a single polypeptide. Chemical or proteolytic treatment of reverse transcriptase has been used in the past to produce enzyme that is missing DNA polymerase activity and retains RNase H activity. It has not been possible to obtain reverse transcriptase that lacks RNase H but retains DNA polymerase activity. We have constructed a novel deletion derivative of the cloned Moloney murine leukemia virus (**M-MLV**) **reverse transcriptase** gene, expressed the gene in E. coli, and purified the protein to near homogeneity. The purified enzyme has a fully active DNA polymerase, but has no detectable RNase H activity. These results are consistent with, but do not prove, the conclusion that the DNA polymerase and RNase H activities of **M-MLV reverse transcriptase** reside within separate structural domains.

=> log y
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	63.70

L12 ANSWER 24 OF 75 CAPLUS COPYRIGHT 2002 ACS
AN 2000:344167 CAPLUS
DN 133:2042
TI Mutant form reverse transcriptase of Moloney murine leukemia virus with improved reactivity at high temperature
IN Arakawa, Taku; Nishiya, Yoshiaki; Kawakami, Fumikiyo; Kawamura, Yoshihisa
PA Toyobo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000139457	A2	20000523	JP 1998-319241	19981110

AB A mutant form enzyme (V224M + D584N) of Moloney murine leukemia virus (**MMLV**)-derived **reverse transcriptase** is provided by point mutation so that the reactivity at a high temp. range (esp., extending ability at 42-60.degree.C) is improved comparing to the wild type and the conventional mutant, and the full-length cDNA is obtained. The mutant enzyme carries no substantial RNase H activity, and contains Tyr-Met-Asp-Asp sequence instead of Tyr-Val-Asp-Asp for the conserved region Tyr-X-Asp-Asp. A vector carrying the recombinant DNA encoding this mutant enzyme, and recombinant host cells (Escherichia coli) transformed using this vector, are claimed.